PATENT CLAIMS

1. Process for the bromination of organic compounds, characterised in that the organic compound in liquid or dissolved form is mixed with a brominating reagent in liquid or dissolved form, if desired in the presence of a catalyst in liquid or dissolved form, in at least one microreactor and reacted for a residence time, and the brominated organic compound is isolated from the reaction mixture.

2. Process according to Claim 1, characterised in that the microreactor is a miniaturised flow reactor.

3. Process according to Claim 1 or 2, characterised in that the microreactor is a static micromixer.

4. Process according to one of Claims 1 to 3, characterised in that the microreactor is connected to a capillary, preferably a heatable capillary, via an outlet.

5. Process according to one of Claims 1 to 4, characterised in that the volume of the microreactor is ≤ 10 µl, preferably ≤ 1 µl.

6. Process according to one of Claims 1 to 5, characterised in that the microreactor is heatable.

7. Process according to one of Claims 1 to 6, characterised in that the microreactor has channels having a diameter of from 10 to 1000 µm, preferably from 20 to 800 µm, particularly preferably from 30 µm to 400 µm.

8. Process according to one of Claims 1 to 7, characterised in that the reaction mixture flows through the microreactor at a flow rate of from 0.1 µl/min to 10 ml/min, preferably from 1 µl/min to 1 ml/min.

9. Process according to one of Claims 1 to 8, characterised in that the residence time of the compounds employed in the microreactor, where appropriate in the microreactor and the capillaries, is ≤ 3 hours, preferably ≤ 1 hour.

10. Process according to one of Claims 1 to 9, characterised in that it is carried out at a temperature of from -90 to +150°C, preferably from -20 to +40°C, particularly preferably from -10 to +20°C.

11. Process according to one of Claims 1 to 10, characterised in that the course of the reaction is monitored by chromatography, preferably gas chromatography, and where appropriate regulated.

12. Process according to one of Claims 1 to 11, characterised in that the brominated product is isolated from the reaction mixture by extraction or precipitation.

13. Process according to one of Claims 1 to 12, characterised in that the brominating reagent employed is elemental bromine, dibromoisocyanuric acid, N-bromosuccinimide, hypobromous acid, organic hypobromites, preferably trifluoroacetyl hypobromite, N-bromoacetamide, N-bromophthalimide, pyridinium perbromide and/or dioxane dibromide.

14. Process according to one of Claims 1 to 13, characterised in that the catalyst employed is iodine, mineral acids, preferably sulphuric acid or nitric acid, and/or Lewis acids, preferably aluminium halides, iron halides, zinc halides or antimony halides.

15. Process according to one of Claims 1 to 14, characterised in that between 0.1 and 100 mol%, preferably between 1 and 10 mol%, of the catalyst are employed, based on the amount of organic compound employed.

16. Bromination microreactor having at least one mixing element and, if desired, a residence zone, characterised in that the volume of the bromination microreactor, without the volume of the residence zone, is ≤ 10 µl, preferably ≤ 1 µl.

17. Bromination microreactor according to Claim 16, characterised in that it is a static micromixer.

18. Bromination microreactor according to Claim 16 or 7, characterised in that the residence zone is a capillary, preferably a heatable capillary.

19. Bromination microreactor according to one of Claims 16 to 18, characterised in that it is heatable.